

Fig. 1

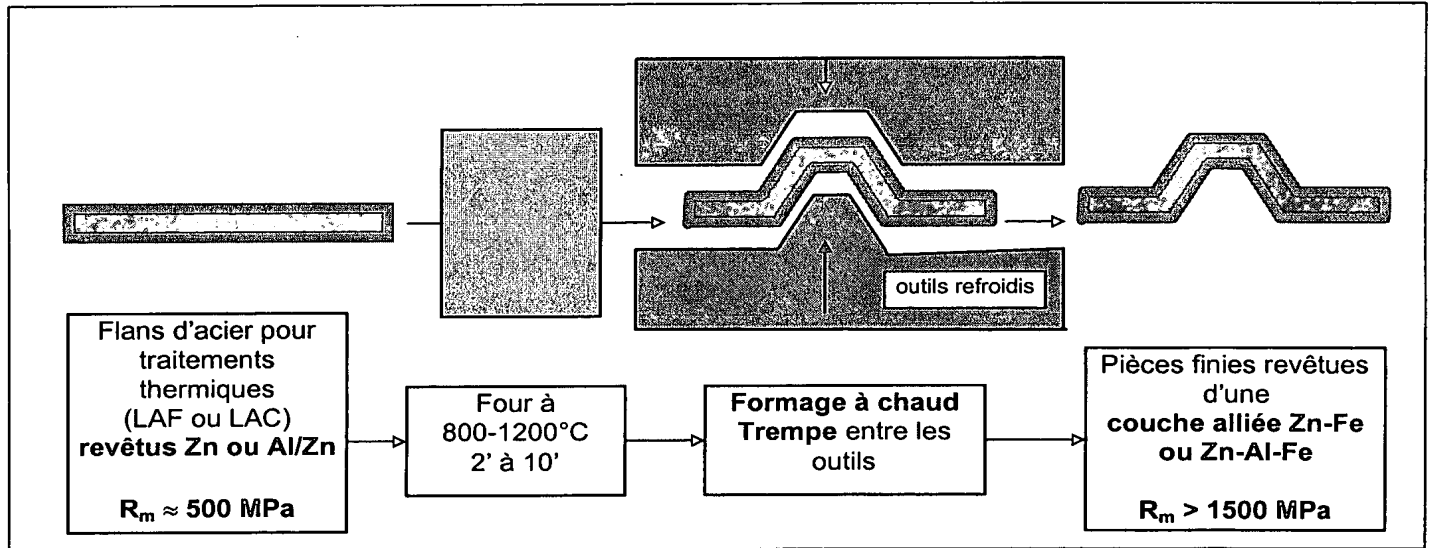


Fig. 2

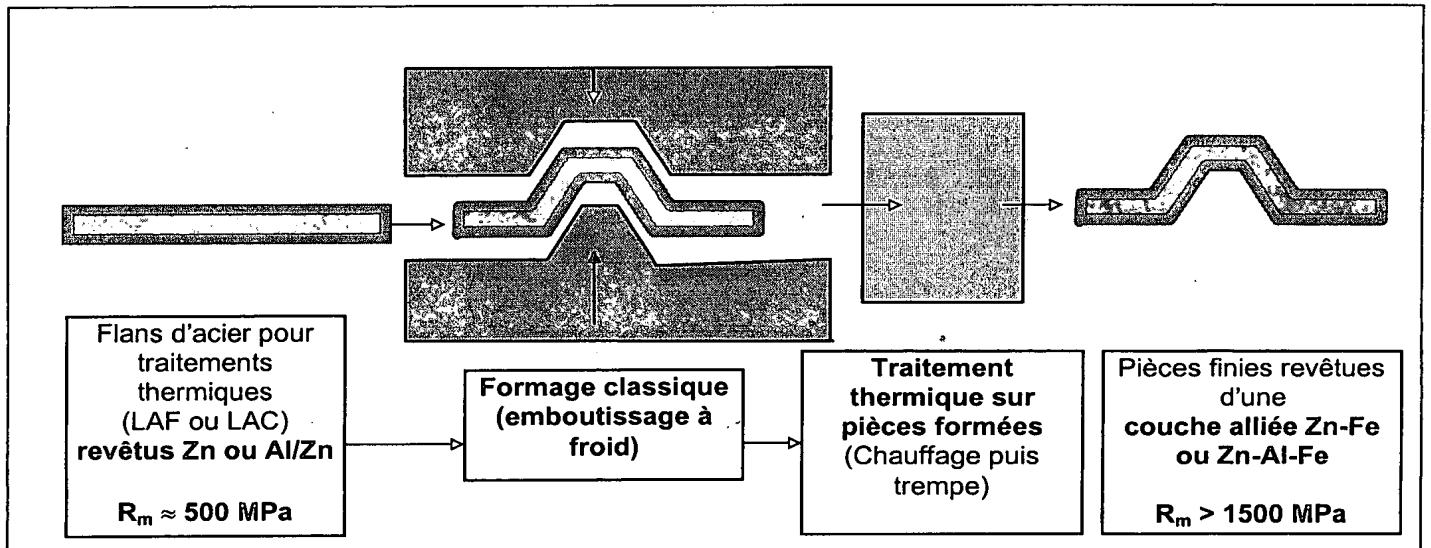


Fig. 3a .

Fig. 3b.

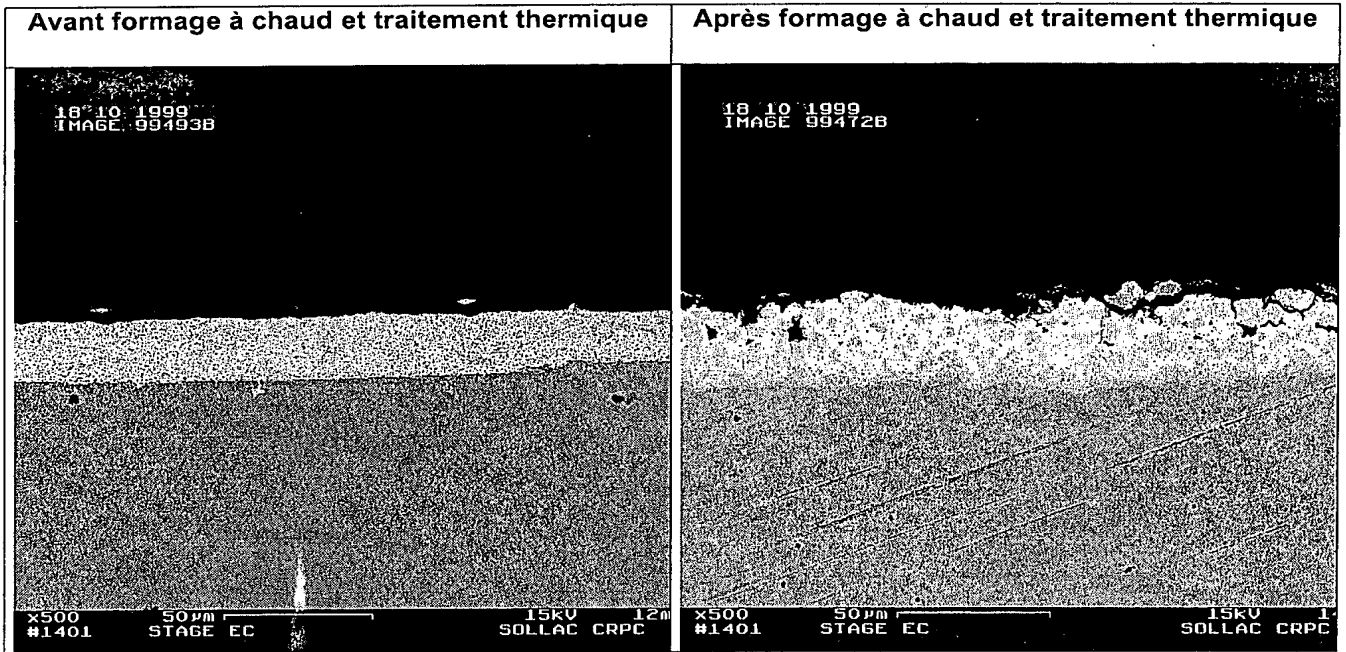


Fig. 4a.

Fig. 4b.

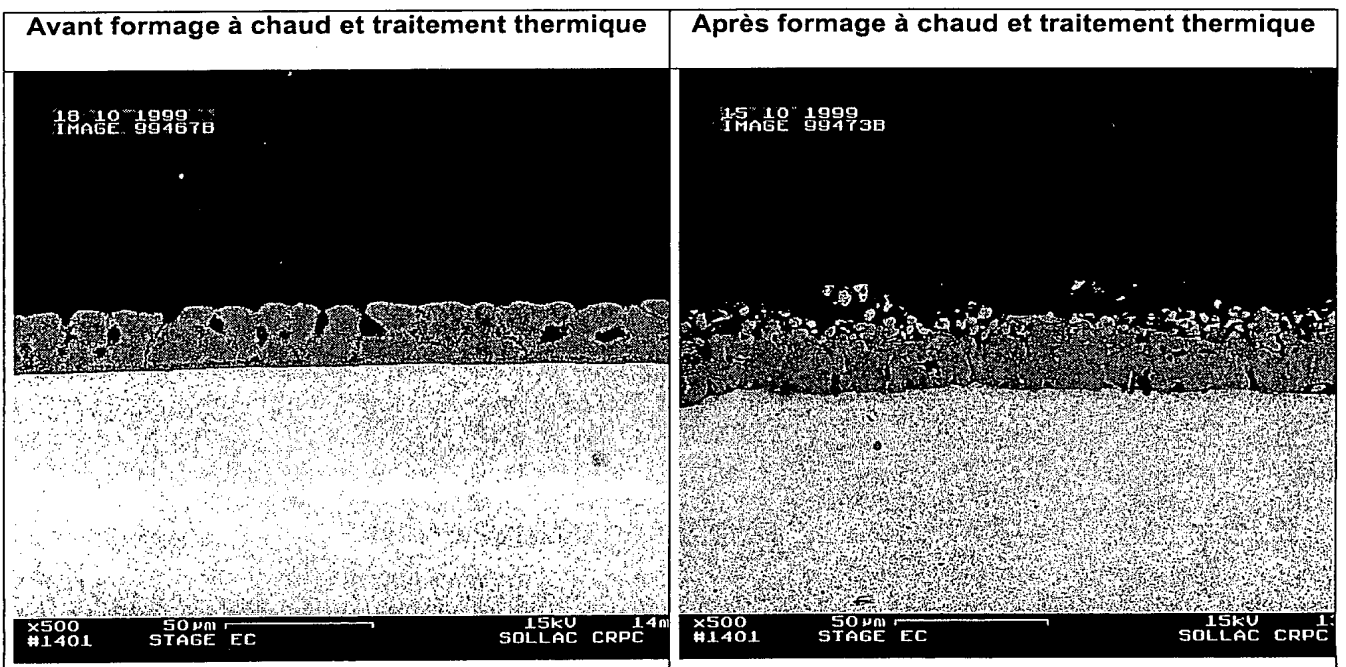


Fig. 1

Cooled tools

Steel blanks for heat treatment (Cold or Hot Rolled) with Zn or Al/Zn coating ts = approx. 500 MPa		Oven at 800-1,200°C 2 to 10 min.		Heat forming Quenching between tools		Finished parts coated with Zn-Fe or Zn-Fe-Al alloyed layer ts > 1,500 MPa
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Fig. 2

<p>Steel blanks for heat treatment (Cold or Hot Rolled) with Zn or Al/Zn coating</p> <p>σ_{ts} = approx. 500 MPa</p>	<p>Conventional forming (cold stamping)</p>	<p>Heat treatment on formed parts (Heating then quenching)</p>	<p>Finished parts coated with Zn-Fe or Zn-Fe-Al alloyed layer</p> <p>$\sigma_{ts} > 1,500$ MPa</p>
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Fig. 3a.

Before hot forming and heat treatment

Fig. 3b.

After hot forming and heat

Fig. 4a.

Before hot forming and heat treatment

Fig. 4b.

After hot forming and heat

treatment